Item 7

CPEC

Community College Enrollment Demand Projections, 2009–2019

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READY OR NOT, HERE THEY COME

In 1995, CPEC estimated correctly that more than 455,000 additional students would seek enrollment at California public colleges and universities by 2005. During the following seven consecutive years of economic expansion, the state made good on its commitment of providing educational opportunity to all qualified prospective students, most of whom enrolled in a community college.

Today, California is confronting unprecedented economic and fiscal challenges, and the state's Master Plan commitment of educational opportunity is being tested again. In this report, CPEC estimates that the state should prepare for 222,000 additional community college students by 2019. Community colleges serve over 2 million students annually. Beginning in fall 2016, the system will be asked for the fist time to serve more than 2 million students each fall term. Without adequate enrollment growth funding, as many as 400,000 prospective students might be denied access to community college education over the next two years. CPEC conducts policy research and analysis to support long-range planning and student success.

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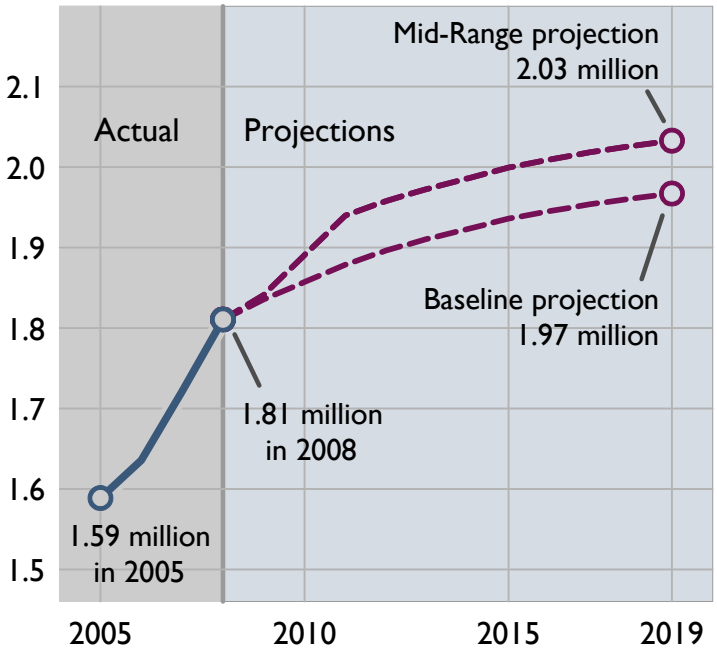
MAJOR FINDINGS

- Community college enrollment demand is expected to increase from 91 students per 1,000 Californians aged 14 to 49 in 2008, to 97 students per 1,000 Californians in 2019.
- The state should prepare for 222,345 additional community college students by 2019 above the fall 2008 peak enrollment level.
- Community colleges serve over 2 million students annually. Beginning in fall 2016, the system will be asked for the fist time to serve more than 2 million students each fall term.
- Because the state is unable to provide enrollment growth funding, the number of prospective students not served over the next two years could total 400,539, resulting in significant pent-up demand. This is referred to as net loss in college opportunity. To catch up, community colleges will need at least 3% enrollment growth funding annually until college opportunity is restored.
- 54 of the 72 (75 %) community college districts are facing capacity pressures, in that they are serving more full-time equivalent students (FTES) than recommended by state classroom utilization standards. The current capacity deficit on a statewide basis is 186,000 FTES, which could grow to 350,000 FTES. The capacity problem could be addressed best through a combination of new capital projects, improved efficiencies, shared facility use, expanded distributed learning arrangements, and expanded evening and weekend course offerings.

COMMUNITY COLLEGE FORECAST SUMMARY

Figure 1 CPEC Mid-Range and Baseline Enrollment Demand, 2009–2019



The Mid-Range Forecast continues upward trends in participation for some age groups for the first three projection years and then holds rates constant for the remaining years.

The Baseline Forecast holds participation rates constant at 2008 levels for the entire projection period.

Community college enrollments have been increasing dramatically over the past four years. As shown in Figure 1 above, fall enrollments increased 12.6%, from 1.59 million in 2005 to 1.81 million in 2008. The 203,000 additional students represent a full recovery from the decline in enrollments that occurred in 2003, when state higher education support declined following the 2001–02 recession and community colleges found it necessary to increase student fees and drastically reduce course offerings.

The Mid-Range Forecast (see Figure 1) shows that community college enrollment demand is expected to increase from 1.81 million in 2008 to 2.03 million in 2019. The state should prepare for a minimum 12.3% increase in community enrollment demand above the peak fall 2008 enrollment level, or 222,000 additional students. Community colleges serve over 2 million students annually. Beginning in fall 2016, the system will be asked for the fist time to serve more than 2 million students each fall term.

The greatest challenge will be in the near term, when enrollments are expected to increase by 2% annually, before tapering off during the latter projection period. If economic conditions were more favorable, then funding this level of enrollment growth would be manageable. Because the community college system is scheduled to receive an 8% decline in base apportionment funding, the loss in community college opportunity and access could be substantial if the system finds it necessary to reduce enrollment by a like percentage for the next two years. This would mean a net decline in college opportunity of 400,000 students.

The Mid-Range Forecast extends upward trends in participation for the next three years for various age groups, and holds rates constant for the remaining seven years of the projection period. Because community college participation varies by ethnicity, age-group participation rates were calcu-

lated and projected separately for each ethnic-racial category. Factors associated with increased participation are discussed in the body of this report. Two rationales are worth mentioning here:

- Many residents are returning to community colleges in greater numbers to train for new careers and occupations as a result of significant job losses occurring in the state, which suggests a continuation of increased enrollment demand.
- UC and CSU are finding it necessary to increase fees, furlough faculty, and limit future enrollments, which suggests that many students may have to complete their first two years of instruction at community colleges before transferring to 4-year institutions.

The Baseline Forecast should be regarded as a low alternative because it holds participation rates constant at 2008 levels. It estimates the increase in community college enrollment demand due solely to population growth. The forecast shows community college demand increasing from 1.81 million students in 2008 to 1.97 million in 2019. The growth represents an 8.7% increase in enrollment demand, or 156,635 additional students.

Analyses of lecture and laboratory capacity indicate that 54 of 72 (75%) community college districts are experiencing physical capacity pressures by serving more full-time equivalent students than implied by state-adopted utilization standards. statewide, the system is experiencing a net capacity deficit of 186,000 FTES. If the system is unable to increase classroom capacity, the net capacity deficit would grow to 350,000 FTES in 2019. This report outlines strategies for enhancing institutional capacity.

IMPETUS FOR THE REPORT

The community college enrollment projection is the first in the *Ready or Not, Here They Come* series that will be developed over the next six months. Community college projections were derived first because the system is the largest in the state, and it accounts for about 75% of undergraduate demand in any given year.

The complete series will update CPEC's statewide enrollment demand and institutional capacity reports published in 1995 and 2000. It is intended to support higher education long-range planning and assist the Governor and the Legislature during budgetary and policy deliberations. It will provide informed and valid projections of the demand for public undergraduate higher education over the next ten years and estimates of classroom lecture and laboratory capacity needed to maximize student success.

More specifically, enrollment and capacity data will be used to address the following questions:

- What level of public investment is required to fully fund undergraduate enrollment demand over the next ten years?
- What level of capital outlay investment is needed to expand the physical capacity of institutions to meet enrollment demand?
- What cost-cutting efficiencies should be explored as viable alternatives to constructing new classroom facilities?

- What is the magnitude of the educational opportunity gap that might result if the state is unable or unwilling to fully fund undergraduate enrollment demand in the near term?
- If the University of California and California State University implement plans to reduce first-time freshman enrollment in the near term, what additional funding would the community college system need to accommodate redirected students?

The next several planning years will be exceedingly challenging for both the state and public colleges and universities. To say that California's public higher education systems will find it difficult to meet student demand in the near term while faced with reduced state support could be considered an understatement. Although preliminary signs indicate that the national economy is poised to grow again, albeit slowly, those signs are not yet as pronounced in the Golden State, and higher education institutions are being asked to stretch dollars to compensate for scarce public funding.

Recent budget figures released by the Legislative Analyst's Office indicate that overall state funding for CSU, UC, and the community colleges will be cut by 8% for academic year 2009–10, after adjusting for new federal funding and student fee revenue. This translates to reductions in operational funding of roughly $1 billion from CSU and $1 billion from UC. Proposition 98 funding, the primary funding mechanism for the community colleges, will be reduced by $812 million.

Given current economic conditions, the public higher education systems are finding it necessary, although reluctantly, to raise student fees, furlough faculty and staff, reduce course offerings, accept fewer students in the near future, and reduce overhead costs by eliminating or consolidating staff positions. While the challenges are enormous, they are not entirely new. Higher education institutions faced similar challenges and circumstances during the recessions of the early 1990s and 2000s. CPEC believes that attention to the enrollment and capacity questions outlined above is the best way to promote student success as California recovers from the current recession.

COMMUNITY COLLEGE ENROLLMENT DEMAND ANALYSIS

The California Community Colleges is the nation's largest higher education system, serving 1.8 million adults and high school seniors. In the 1950s, the community college mission began to evolve to meet California's changing educational, workforce, and economic needs. Presently, the community colleges are responsible for lower-division academic instruction, occupational and career technical training, adult education, remedial and basic skills education, and community service and vocation programs. The system has fully recovered from the decline in enrollments that occurred in 2003, when state support for higher education declined following the 2001-02 recession and community colleges had to increase student fees and drastically reduce course offerings.

Community college enrollments have been increasing dramatically for the past five years. Between 2005 and 2008, fall enrollments grew 12.6%, from 1.6 million in 2005 to 1.81 million in 2008. The Mid-Range Forecast indicates that demand will increase from 1.81 million to 2.03 million in 2019. This means that the state should prepare at a minimum for 222,000 additional students above the fall 2008 peak enrollment level. Between 2009 and 2019, approximately 192,000 additional students are anticipated to seek enrollment. Although the community colleges serve more than 2 million students annually, beginning in 2016 campuses will be asked to serve more than 2 million students during each fall term.

Display 1 Mid-Range Forecast of Community College Enrollment Demand, 2009–2019 by Ethnicity

Fall	American Indian	Asian	Black	Latino	White/ Other	Total Demand
2009	17,794	313,177	153,458	640,150	716,653	1,841,232
2010	18,294	320,740	156,576	668,705	726,363	1,890,678
2011	18,812	328,765	159,455	698,616	734,105	1,939,753
2012	19,148	331,443	159,329	717,704	730,336	1,957,960
2013	19,443	333,425	158,835	735,469	725,672	1,972,844
2014	19,691	335,335	157,932	752,498	720,519	1,985,975
2015	19,676	338,539	156,547	769,753	714,912	1,999,427
2016	19,653	341,351	154,983	784,230	709,091	2,009,308
2017	19,615	344,636	153,433	796,993	703,971	2,018,648
2018	19,547	347,617	151,757	808,110	699,060	2,026,091
2019	19,477	350,491	150,055	819,213	693,642	2,032,878
PCT Change	9.5	11.9	-2.2	28.0	-3.2	10.4

Asian includes Filipinos and Pacific Islanders.

Display 2 Population Projections by Ethnic Group, 2008–2019, Ages 14 and over

	American Indian	Asian	Black	Latino	White, Other	Total Population
2009	207,499	4,027,977	1,891,411	10,581,666	14,372,162	31,080,715
2010	213,006	4,102,993	1,902,337	10,889,220	14,392,506	31,500,062
2011	218,998	4,180,558	1,912,857	11,198,262	14,402,814	31,913,489
2012	224,784	4,255,200	1,921,857	11,499,340	14,407,857	32,309,038
2013	230,537	4,327,721	1,930,131	11,798,468	14,411,787	32,698,644
2014	236,005	4,400,874	1,937,069	12,102,188	14,414,909	33,091,045
2015	240,150	4,478,556	1,942,891	12,429,809	14,419,601	33,511,007
2016	244,196	4,553,643	1,947,078	12,753,067	14,420,514	33,918,498
2017	248,117	4,630,379	1,950,702	13,076,203	14,423,208	34,328,609
2018	251,921	4,706,259	1,953,254	13,397,687	14,424,111	34,733,232
2019	255,658	4,781,897	1,955,603	13,724,708	14,420,596	35,138,462
PCT Change	23.2%	18.7%	3.4%	29.7%	0.3%	13.1%

Source: California Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 2000–2050.*

Display 3 Population Projections by Ethnic Group, 2008–2019, Ages 14 to 49

	American Indian	Asian	Black	Latino	White, Other	Total
2009	131,981	2,560,935	1,281,983	8,192,008	7,851,723	20,018,630
2010	133,591	2,574,931	1,273,653	8,361,375	7,746,944	20,090,494
2011	135,645	2,593,017	1,266,498	8,534,853	7,642,985	20,172,998
2012	137,480	2,608,653	1,258,730	8,696,117	7,539,472	20,240,452
2013	139,350	2,619,373	1,251,252	8,850,103	7,443,277	20,303,355
2014	140,984	2,630,491	1,242,750	9,001,174	7,351,618	20,367,017
2015	141,442	2,646,585	1,232,828	9,170,265	7,271,349	20,462,469
2016	142,022	2,663,054	1,224,823	9,338,407	7,212,155	20,580,461
2017	142,633	2,682,685	1,218,305	9,506,176	7,162,359	20,712,158
2018	143,171	2,699,179	1,211,958	9,668,988	7,113,510	20,836,806
2019	143,670	2,712,961	1,204,914	9,834,654	7,056,182	20,952,381
PCT Change	8.9	5.9	-6.0	20.1	-10.1	4.7

Adapted from California Department of Finance, Race/Ethnic Population with Age and Sex Detail, 2000–2050.

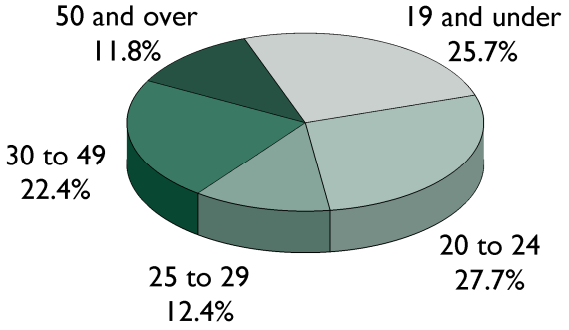
CPEC's community college demand model is a demographic model and uses observed changes in population and other relevant factors and assumptions to project changes in enrollment demand. Enrollment Demand is an estimate of the total number of qualified prospective and continuing students that would enroll in the community college system in a given year at a prevailing student fee level if enrollments were not constrained by State funding. In contrast, an enrollment projection is an estimate of enrollment the State is able and willing to fund based on budgetary, economic, and fiscal circumstances. When circumstances are favorable, enrollment demand and enrollment projection estimates will yield very similar results. When circumstances are less favorable, as during economic recessions, demand estimates will be higher than projection estimates, because, by definition, State resources are insufficient to fully meet demand.

The Demographic Research Unit of the Department of Finance and the Legislative Analyst's Office use similar demographic models. Displays 2 and 3, on the opposite page, show population projections by ethnicity and age. About 88% of people who enroll in community college are in the 14 to 49 age group, which is expected to grow at a much slower pace because baby boomers have been excluded.

CPEC staff analyzed historical college enrollments and participation rates by age group and ethnicity. Participation rates represent the proportion of Californians of a particular age group and ethnicity enrolled at a community college. The distribution of community college enrollments by age is shown in the pie chart. Age-group participation was disaggregated by ethnicity because college enrollments vary by ethnicity. Including ethnicity in the enrollment model helps state planners to assess the extent to which college opportunity is equitable across ethnicity.

The historical analysis showed that upward trends in college participation over the past eight years were most pronounced for the 14–19, 20–24, and 25–29 age groups. Staff used regression analysis to derive reasonable rates of changes in participation for those age categories. The change rates (slope of the regression line) were continued over the first three years of the projection period and then held constant for the remaining years. With few exceptions, participation rates for the older age group were held constant through the projection period.

Figure 2 Community College Enrollment by Age Group, 2008



The Mid-Range Projection indicates that the percent change in enrollment demand of 10.4% will be a few percentage points lower than the projected change of 13.7% in California's population for persons age 14 and over. The lower change rate occurs because the state's population of persons aged 14 to 49 is expected to increase by 4.7%, or at an annual compounded rate of less than 1 percentage point (.0046).

CPEC's Mid-Range Projection shows a small decline of White and Black students. This occurs because the number of White residents aged 14 to 49 is expected to decline over the next ten years by 796,000 and Black residents by 77,000. The decline is due principally to lower birth rates and mi-

gration patterns. While CPEC projects increased participation rates for all ethnic groups, increases for Whites and Blacks will be partially offset by their declines in the general population.

CPEC believes that it is reasonable to expect college participation rates to continue to increase at least for the next three years for reasons outlined here.

- An increasing number of residents are returning to the community colleges in greater numbers to train for new careers and occupations as a result of significant job losses occurring in the state, which suggests a continuation of increased enrollment demand.
- Expansion of California's green economy will spur growth in community college training programs that will prepare prospective workers for green jobs.
- A gradual California job recovery beginning in year 2010 that will foster enrollment growth in occupational training programs for which the community colleges are a major provider.
- UC and CSU are finding it necessary to increase fees, furlough faculty, and limit future enrollments, which suggests that many students may have to complete their first two years of instruction at a community college before transferring to a university campus.
- The Obama Administration has made higher education a priority and is in the process of implementing federal programs to boost college participation.

If economic conditions were more favorable, funding the level of enrollment demand estimated by the Mid-Range Forecast would be manageable. Because the community college system is scheduled to receive an 8% decline in base apportionment funding, the loss in community college opportunity and access could be substantial if the system finds it necessary to reduce enrollment by a like percentage for the next two years. This would mean a net decline in college opportunity of 400,530 students, as shown by the worksheet in Figure 3. This also means that the greatest funding challenge will be in the near term, when enrollments are expected to increase at an annual rate of about 2%, before tapering off during the latter projection period.

Figure 3 Loss in College Opportunity Worksheet

Fall 2008 Headcount Enrollment	1,810,533
2009–10 Net Percentage Decline in State Funding	8.0 %
Target Headcount Enrollment if Colleges Find it Necessary to Reduce Fall Enrollments by 8.0%	1,665,690
Fall 2009 Mid-Range Enrollment Demand Forecast	1,841,232
Loss in College Opportunity Fall 2009 (Mid-Range 2009 forecast minus Fall 2009 Target Enrollment)	-175,542
Fall 2010 Mid-range Enrollment Demand Forecast	1,890,678
Loss in College Opportunity Fall 20210 (Mid-Range 2010 forecast minus Fall 2009 Target Enrollment)	-224,988
Combined Loss in College Opportunity Fall 2009–Fall 2010	-400,530

The Baseline Forecast, shown below in Display 4, is provided as a low alternative demand forecast in that it holds all participation rates constant at Fall 2008 observed levels for the entire projection period. It offers a valid projection of increases in enrollment demand due solely to increases in California's college-going age population. Holding rates constant, enrollment demand is shown to increase from 1.84 million students to 1.97 million students.

Display 4 Baseline Forecast, 2009–19 by Ethnicity

Fall	American Indian	Asian	Black	Latino	White, Other	Total Demand
2009	17,193	319,467	146,399	624,767	727,549	1,835,374
2010	17,544	322,189	146,832	643,558	727,204	1,857,327
2011	17,913	325,366	147,042	663,126	725,239	1,878,686
2012	18,244	328,084	146,901	681,261	721,873	1,896,363
2013	18,535	330,094	146,427	698,136	717,504	1,910,696
2014	18,784	332,001	145,584	714,280	712,561	1,923,209
2015	18,795	335,175	144,299	730,590	707,038	1,935,898
2016	18,802	337,949	142,842	744,294	701,249	1,945,135
2017	18,793	341,171	141,388	756,396	696,075	1,953,823
2018	18,754	344,093	139,807	766,982	691,133	1,960,770
2019	18,712	346,912	138,196	777,594	685,754	1,967,168
PCT Change	8.8	8.6	-5.6	24.5	-5.7	7.2

COMMUNITY COLLEGE CLASSROOM CAPACITY ANALYSIS

Background

Questions regarding the amount of physical capacity needed to support student learning and instruction were originally thought to be answerable indirectly through state standards. This was because policymakers of the post-World War II era argued that enrollment capacity should be determined by the availability and usage of classrooms and teaching laboratories alone, and therefore, space standards needed to be crafted and adopted. Such thinking was guided by the assumption that virtually all instruction would take place in those facilities, and that other needs of the physical plant, such as space for administration and plant maintenance, would be built as circumstances dictated. The standards, last revised in the 1970s, entail certain assumptions on size, hourly usage, and occupancy levels for classrooms, teaching laboratories, and faculty offices.

Other types of facility space, termed non-capacity space, include museums, observatories, cultural centers, hospitals, theatres, student unions, auditoriums, dormitories, auto shops, and childcare centers. Because those facilities are varied, it is difficult to apply a common standard. An institution may have adequate classrooms and teaching laboratories, yet is unable to enroll additional students due to a lack of support facilities, unless of course, good prior planning has produced a balanced physical plant.

Unlike the post-World War II era, learning, engagement, exploration, collaboration, and discovery now takes place wherever and whenever students can sign on to the Internet, be it in traditional classrooms, or in a cafeteria, library, or dorm room.

It is quite common to walk into a local coffee house and find students engaged in learning while sipping a café latté. Still, the classroom will always be a major component of higher education, and an analysis of classroom capacity is central to higher education planning.

State Classroom Space and Utilization Standards

Space and utilization standards are based on a desired occupancy. The standards require most lecture classrooms to be in use 53 hours per week, excluding Saturdays. The standards recommend that each student station average 15 Assignable Square Feet (ASF) and be occupied approximately 66% of the time. The term Weekly Student Contact Hours (WSCH) refers to the number of weekly hours of instruction a student would be engaged in per unit. A full-time student taking 15 semester units is engaged in 15 hours of instruction per week. Every 100 ASF of lecture space supports about 15.54 full-time equivalent students (FTES).

Laboratory capacity standards allow for various levels of ASF per station, depending on the discipline and course level (i.e., lower division, upper division, graduate). For example, the standards call for 115 ASF per student station for an agricultural laboratory, whereas 200 ASF per student station is allowed for an auto-mechanics laboratory. Averaged over all disciplines, every 100 ASF of laboratory space will support about 1.5 FTES.

Display 5 State-Adopted Space and Utilization Standards for Lecture Classroom

Weekly Room Hours	53 hours
Station Occupancy	66%
Weekly Station Hours	35 hours
ASF per Station	15 ASF
WSCH per ASF	2.331
WSCH per 100 ASF	233.1
FTES capacity per 100 ASF	15.54

As a first step in estimating the current physical capacity of the community colleges in meeting enrollment demand, CPEC obtained from the California Community Colleges Chancellor's Office the current total assignable square feet (ASF) of lecture and laboratory space by district. These data are shown in Display 6 on page 14. The state-adopted space and utilization standards were used to convert ASF physical capacity to FTES capacity. In Display 7 on page 16, FTES capacity is compared with 2008–09 FTES enrollments by district. As shown, 54 of the 72 (75%) community college districts are facing capacity pressures, in that they are serving more full-time equivalent students (FTES) than recommended by state classroom utilization standards. The current capacity deficit on a statewide basis is 186,000 FTES, which could grow to 350,000 FTES by 2019. It should be noted that the statewide deficit value understates the magnitude of the capacity problem, because a campus with capacity surplus is of little value to a campus with a capacity deficit, unless the two campuses are located close to one another, which might allow for joint facility partnerships.

While public support for capital construction projects remains strong, building campuses and off-campus centers must be viewed as only part of the solution — although a significant part. CPEC is pleased that community colleges continue to explore alternative means of expanding capacity. More specifically, CPEC encourages community colleges to:

- Expand year-round operations and evening and weekend courses.
- Increase the use of regional educational centers and joint facilities, especially with local high schools.
- Expand distributed learning opportunities that allow students to choose learning environments that are less dependent on physical space and location. Distributed learning classes use Internet-based tools and other computer-mediated technology.
- Support productive learning environments that enable students to become proficient learners so that they can realize their educational goals and aspirations more rapidly.

Display 6 Current Lecture and Laboratory ASF by District

Region	Lecture ASF	Lab ASF	Total ASF
Allan Hancock	59,611	106,846	166,457
Antelope Valley	36,284	113,708	149,992
Barstow	9,709	10,074	19,783
Butte-Glenn	59,181	118,467	177,648
Cabrillo	46,680	64,795	111,475
Cerritos	83,405	177,161	260,566
Chabot-Las Positas	94,704	154,843	249,547
Chaffey	52,061	119,872	171,933
Citrus	58,360	131,943	190,303
Coast	138,395	345,476	483,871
Compton	24,030	59,529	83,559
Contra Costa	159,163	261,450	420,613
Copper Mountain	7,338	11,504	18,842
Desert	48,721	63,720	112,441
El Camino	127,556	197,079	324,635
Feather River	9,230	16,079	25,309
Foothill-DeAnza	134,607	304,535	439,142
Gavilan	26,674	56,700	83,374
Glendale	74,227	94,469	168,696
Grossmont-Cuyamaca	82,901	205,890	288,791
Hartnell Joint	21,125	66,624	87,749
Imperial Valle	32,990	33,836	66,826
Kern	100,889	151,246	252,135
Lake Tahoe	14,755	22,397	37,152
Lassen	16,033	38,632	54,665
Long Beach	78,458	197,948	276,406
Los Angeles	538,043	961,840	1,499,883
Los Rios	212,763	439,485	652,248
Marin	50,223	111,333	161,556
Mendocino-Lake	11,459	41,008	52,467
Merced	42,207	111,480	153,687
Mira Costa	62,957	78,082	141,039
Monterey Peninsula	35,928	63,207	99,135
Mt. San Antonio	180,093	246,357	426,450
Mt. San Jacinto	41,534	77,071	118,605
Napa Valley	28,951	70,816	99,767
North Orange County	217,674	316,196	533,870
Ohlone	52,445	84,234	136,679
Palo Verde CCD	3,984	22,755	26,739
Palomar CCD	67,867	169,698	237,565

Region	Lecture ASF	Lab ASF	Total ASF
Peralta	104,327	276,906	381,233
Rancho Santiago	163,776	158,750	322,526
Redwoods	37,613	96,851	134,464
Rio Hondo	51,346	96,573	147,919
Riverside	139,363	166,219	305,582
San Bernardino	86,515	172,030	258,545
San Diego	271,998	352,924	624,922
San Francisco	228,735	308,418	537,153
San Joaquin Delta	71,735	161,899	233,634
San Jose-Evergreen	87,190	184,133	271,323
San Luis Obispo County	48,403	99,486	147,889
San Mateo County	143,898	243,265	387,163
Santa Barbara	100,643	122,230	222,873
Santa Clarita	64,253	126,663	190,916
Santa Monica	147,327	128,082	275,409
Sequoias	47,796	84,356	132,152
Shasta-Tehama-Trinity Joint	45,130	86,566	131,696
Sierra Joint	82,429	127,120	209,549
Siskiyou Joint	13,521	30,556	44,077
Solano	63,147	88,940	152,087
Sonoma County Junior	103,107	142,960	246,067
South Orange County	120,807	159,891	280,698
Southwestern	90,306	130,912	221,218
State Center	128,594	319,571	448,165
Ventura County	161,643	254,027	415,670
Victor Valley	17,271	119,832	137,103
West Hills	21,303	45,255	66,558
West Kern	11,569	20,123	31,692
West Valley-Mission	94,498	145,090	239,588
Yosemite	57,818	220,700	278,518
Yuba	77,139	86,153	163,292
System Wide Totals	6,131,381	10,872,320	17,003,701

Display 7 Community College Capacity Analysis Based on 2008–09 Data

District	2008–09 FTES Data		
	FTES Enrollment	FTES Capacity	FTES Surplus/Deficit
Allan Hancock	11,063	10,841	-222
Antelope Valley	11,989	7,319	-4,670
Barstow	3,394	1,657	-1,737
Butte-Glenn	13,331	10,946	-2,385
Cabrillo	12,017	8,210	-3,807
Cerritos	20,431	15,578	-4,854
Chabot-Las Positas	16,135	17,002	868
Chaffey	15,630	9,861	-5,769
Citrus	12,943	11,018	-1,925
Coast	39,084	26,610	-12,473
Compton	4,742	4,614	-128
Contra Costa	33,207	28,593	-4,614
Copper Mountain	2,111	1,310	-801
Desert	8,581	8,511	-70
El Camino	22,261	22,730	469
Feather River	1,288	1,672	384
Foothill-DeAnza	38,365	25,416	-12,949
Gavilan	5,748	4,983	-766
Glendale	17,537	12,928	-4,609
Grossmont-Cuyamaca	19,848	15,924	-3,923
Hartnell Joint	7,858	4,267	-3,591
Imperial Valle	9,465	5,625	-3,839
Kern	21,992	17,910	-4,083
Lake Tahoe	2,000	2,623	623
Lassen	1,961	3,062	1,101
Long Beach	22,944	15,117	-7,828
Los Angeles	111,444	97,811	-13,633
Los Rios	62,840	39,554	-23,286
Marin	447	9,449	9,002
Mendocino-Lake	3,121	2,387	-734
Merced	10,961	8,206	-2,755
Mira Costa	7,584	10,935	3,351
Monterey Peninsula	7,915	6,516	-1,399
Mt. San Antonio	31,576	31,621	44
Mt. San Jacinto	12,585	7,592	-4,993
Napa Valley	6,572	5,545	-1,027
North Orange County	36,784	38,492	1,708
Ohlone	9,301	9,393	92

District	2008–09 FTES Data		
	FTES Enrollment	FTES Capacity	FTES Surplus/Deficit
Palo Verde	1,083	956	-128
Palomar	21,596	13,054	-8,543
Pasadena	26,455	19,227	-7,228
Peralta	22,350	20,304	-2,047
Rancho Santiago	35,956	27,789	-8,167
Redwoods	5,473	7,276	1,803
Rio Hondo	16,068	9,405	-6,663
Riverside	31,364	24,108	-7,256
San Bernardino	16,173	15,985	-188
San Diego	44,414	47,474	3,060
San Francisco	42,935	40,095	-2,840
San Joaquin Delta	17,681	13,539	-4,142
San Jose-Evergreen	16,384	16,269	-115
San Luis Obispo County	10,390	8,991	-1,399
San Mateo County	20,729	25,952	5,223
Santa Barbara	17,435	17,442	7
Santa Clarita	15,750	11,855	-3,894
Santa Monica	28,050	24,780	-3,270
Sequoias	9,652	8,673	-980
Shasta-Tehama-Trinity Joint	8,525	8,291	-234
Sierra Joint	15,234	14,685	-549
Siskiyou Joint	2,781	2,552	-228
Solano	4,887	11,125	6,238
Sonoma County Junior	22,748	18,132	-4,617
South Orange County	24,785	21,132	-3,653
Southwestern	15,859	15,965	106
State Center	31,891	24,705	-7,186
Ventura County	30,935	28,868	-2,066
Victor Valley	10,613	4,456	-6,157
West Hills	6,602	3,979	-2,623
West Kern	333	2,095	1,762
West Valley-Mission	18,886	16,826	-2,060
Yosemite	18,839	12,247	-6,592
Yuba	9,170	13,257	4,088
Systemwide Totals	1,299,083	1,113,318	-185,764

APPENDIX A

Mid-Range Enrollment Demand Forecast, Community College Participation per 1,000 Persons

	American Indian	Asian	Black	Latino	White, other	Average
Age 14–19						
2009	179	198	148	110	133	130
2010	185	203	150	113	137	133
2011	191	208	153	115	142	136
2012	191	208	153	115	142	136
2013	191	208	153	115	142	136
2014	191	208	153	115	142	136
2015	191	208	153	115	142	136
2016	191	208	153	115	142	136
2017	191	208	153	115	142	136
2018	191	208	153	115	142	136
2019	191	208	153	115	142	136
Age 20–24						
2009	227	283	203	163	167	182
2010	227	288	207	166	167	184
2011	227	293	211	168	167	185
2012	227	293	211	168	167	185
2013	227	293	211	168	167	185
2014	227	293	211	168	167	185
2015	227	293	211	168	167	184
2016	227	293	211	168	167	184
2017	227	293	211	168	167	185
2018	227	293	211	168	167	185
2019	227	293	211	168	167	185
Age 25–29						
2009	131	120	113	77	87	89
2010	131	124	113	79	89	91
2011	131	128	113	80	91	93
2012	131	128	114	80	91	93
2013	131	128	114	80	91	93
2014	131	128	114	80	91	93
2015	131	128	115	80	91	92
2016	131	128	115	80	91	92
2017	131	128	115	80	91	92
2018	131	128	116	80	91	92
2019	131	128	116	80	91	92

	American Indian	Asian	Black	Latino	White, other	Average
Age 30–49						
2009	66	46	62	33	34	37
2010	66	46	64	33	34	37
2011	66	46	65	33	35	38
2012	66	46	65	33	35	38
2013	66	46	65	33	35	38
2014	66	46	65	33	35	38
2015	66	46	65	33	35	38
2016	66	46	65	33	35	38
2017	66	46	65	33	35	38
2018	66	46	65	33	35	38
2019	66	46	65	33	35	38
Age 50 +						
2009	27	24	25	14	20	20
2010	27	24	25	14	20	20
2011	27	24	26	14	20	20
2012	27	24	26	14	20	20
2013	27	24	26	14	20	19
2014	27	24	26	14	20	19
2015	27	24	26	14	20	19
2016	27	24	26	14	20	19
2017	27	24	26	14	20	19
2018	27	24	26	14	20	19
2019	27	24	26	14	20	19

The Mid-Range Forecast continues upward trends in participation for some age groups for the first three projection years and then holds rates constant for the remaining years.

The Baseline Forecast holds participation rates constant at 2008 levels for the entire projection period.

Overall, community college enrollment demand is expected to increase from 91 per 1,000 Californians aged 14 to 49 in 2008 to 97 students per 1,000 persons in 2019.

APPENDIX B

Enrollment Demand Method

Enrollment Demand is an estimate of the total number of qualified prospective and continuing students that would enroll in the community college system in a given year at a prevailing student fee level if enrollments were not constrained by state funding. In contrast, an *enrollment projection* is an estimate of enrollment the state is able and willing to fund based on budgetary, economic, and fiscal circumstances. When circumstances are favorable, enrollment demand and enrollment projection estimates will yield very similar results. When circumstances are less favorable, as during economic recessions, demand estimates will be higher than projection estimates, because, by definition, state resources are insufficient to fully meet demand.

To estimate enrollment demand, staff used historical fall headcount enrollments by age group and ethnicity. Cases with an unknown ethnicity were prorated proportionately. Within ethnicity, cases with an unknown age group were prorated proportionately. Historical participation rates were derived by dividing community college fall enrollments by the corresponding California population estimates prepared by the Demographic Research Unit of the Department of Finance.

The historical data showed that upward trends in college participation over the past eight years were most pronounced for the 14–19, 20–24, and 25–29 age groups. Staff used regression analysis to derive a mean rate of change in participation for those age categories. The regression slope represents a linear average change rate and is defined symbolically as:

$$b_{yx} = n \sum xy - (\sum x)(\sum y) / n \sum x^2 \; - \; (\sum x)^2$$

where n = number of cases x = year y = participation rate

The change rates for the age groups stated above were continued over the first three years of the projection period and then held constant for the remaining years (see Appendix A). With few exceptions, participation rates for the older age groups were held constant through the projection period. Enrollment demand headcounts were derived by multiplying the participation rates by the population estimates.

Classroom Capacity Method

To estimate the current physical capacity of the community colleges, CPEC obtained from the California Community Colleges Chancellor's Office the current total assignable square feet (ASF) of lecture and laboratory space by district. State-adopted space and utilization standards, described on page 12, were used to convert ASF classroom capacity to FTES capacity. A capacity deficit/surplus value was obtained by subtracting FTES capacity from fall 2008 FTES enrollment. A positive value indicates a surplus and a negative indicates a deficit. District values were summed to derive a statewide net value. The current statewide capacity deficit is 186,000 FTES. It should be noted that the statewide deficit value understates the magnitude of the capacity problem, because a campus with capacity surplus is of little value to a campus with a capacity deficit, unless the two campuses are located close to one another, which might allow for joint facility partnerships. Based on the CPEC fall 2019 demand estimates, a 350,000 FTES capacity deficit would result in the absence of corrective actions outlined in the report.